

Amendments to the Specification:

Please replace the paragraph of page 7, lines 29-32, and page 8, lines 1-2, with the following amended paragraph:

FIG. 1 is a block diagram illustrating a structure of a device for extending a character region in an image according to a first embodiment of the present invention. Referring to FIG. 1, input part 110 has the function of receiving an input image. Input part 110 can be a camera, scanner, a communication interface including a modem and a network, or a computer, as well as other devices. ~~devices.~~ It is assumed herein the input image is comprised of 640 (column) \times 480 (row) pixels.

Please replace the paragraph of page 11, lines 13-18, with the following amended paragraph:

FIG. 2 is a block diagram illustrating a structure of a device for extending a character region in an image according to a second embodiment of the present invention. Referring to FIG. 2, input part 110 has the function of receiving an input image. Input part 110 can be a camera, scanner, a communication interface including a modem and a network, or a computer, as well as other devices. ~~devices.~~ It is assumed herein the input image is comprised of 640 (column) \times 480 (row) pixels.

Please replace the paragraph of page 17, lines 18-24, with the following amended paragraph:

After the median filtering on the image, the interpolation part 195 performs interpolation on horizontal and vertical pixels of an output image from the median filter 130 to extend the image to the size of the input image. In the second embodiment of the present invention, it is assumed that an interpolation ratio is $(2:1)^2$. The interpolation operation is performed in order to search for a correct position of the character region and to extend the size of the image reduced by the subsampling process to that of the original image.

Amendments to the Specification (continued):

Please replace the paragraph of page 17, lines 26-32, and page 18, lines 1-9, with the following amended paragraph:

The position search part 140 horizontally and vertically scans the median-filtered image and searches for the position of the character region. The position search part 140 horizontally scans the median-filtered image, searches for a point x1 at the leftmost character block and a point x2 at the rightmost character block, and saves the result of the search. Furthermore, the position search part 140 vertically scans the median-filtered image, searching for a point y1 at the topmost character block and a point y2 at the bottommost character block, and stores the result of the search. The left top and right bottom points (x1, y1) and (x2, y2) of the character region depend upon the results of the searches. The left top and right bottom points (x1, y1) and (x2, y2) of the character region are determined based on the aspect ratio of the input image, such that the distortion of the image can be substantially reduced or eliminated when the following ROC extension part 160 extends the image. In the second embodiment of the present invention, the left top and right bottom points (x1, y1) and (x2, y2) of the character region are determined so that a ratio of width to length associated with the character region searched by the position search part 140 becomes 4:3 since the ratio of width to length associated with the input image is 4:3 (i.e., 640:480 pixels). ~~pixels).~~

Amendments to the Specification (continued):

Please replace the paragraph of page 24, lines 22-32, and page 25, lines 1-6, with the following amended paragraph:

Thereafter, in step 317, the interpolated image whose size is extended to its original size is horizontally and vertically scanned to search for a position of a character region. The position search part 140 horizontally scans the median-filtered image, searches for a point x1 at the leftmost character block and a point x2 at the rightmost character block, and saves a result of the search. Furthermore, the position search part 140 vertically scans the median-filtered image, searches for a point y1 at the topmost character block and a point y2 at the bottommost character block, and stores a result of the search. The left top and right bottom points (x1, y1) and (x2, y2) of the character region depend upon the results of the searches. The left top and right bottom points (x1, y1) and (x2, y2) of the character region are determined based on the aspect ratio of the input image, such that the distortion of the image can be substantially reduced or eliminated when the following ROC extension part 160 extends the image. In the embodiments of the present invention, the left top and right bottom points (x1, y1) and (x2, y2) of the character region are determined so that the ratio of width to length associated with the character region searched by the position search part 140 becomes 4:3 since the ratio of width to length associated with the input image is also 4:3 (i.e., 640:480 pixels). ~~pixels).~~

Amendments to the Specification (continued):

Please replace the paragraph of page 26, lines 7-18, with the following amended paragraph:

Thereafter, in step 539, left top and right bottom points (x1, y1) and (x2, y2) of the character region in the image are determined according to the search results. The left top and right bottom points (x1, y1) and (x2, y2) of the character region are determined based on an aspect ratio of the input image, so that distortion of the image can be substantially reduced or prevented when the ROC extension part 160 extends the image. In this embodiment of the present invention, the left top and right bottom points (x1, y1) and (x2, y2) of the character region are determined so that the ratio of width to length associated with the character region searched by the position search part 140 is 4:3, since the ratio of width to length associated with the input image is also 4:3 (i.e., 640:480 pixels). ~~pixels~~. Therefore, if the determined positions of the character region are inconsistent with the aspect ratio of the input image, the positions of the character region are changed so that they are coincident with an aspect ratio of the input image.